

said cutter units being positioned such that said shafts are disposed substantially in parallel to each other, and such that disks of said first cutter unit are fitted in the gaps between adjacent disks of said second cutter unit,

said bone mill further comprising a drive force transmission mechanism for mutually inwardly rotating said shaft of said first cutter unit and said shaft of said second cutter unit such that a bone to be crushed is taken in between said blades formed on said disks of said first cutter unit and said blades formed on said disks of said second cutter unit,

at least one of said disks of each of said first and second cutter units having both at least one biting blade adapted to pull pieces of the bone to be crushed into the space between the first and second cutter units, and at least one crushing blade adapted to crush said bone pieces.

A1 SUB B1 26 (new). The bone mill of claim 25, wherein at least one of said first and second cutter units includes both a relatively large diameter disk having both at least one biting blade adapted to pull pieces of the bone to be crushed into the space between the first and second cutter units, and at least one crushing blade adapted to crush said bone pieces, and a relatively small diameter disk having at least one crushing blade but no biting blade.

A1 ²~~27~~ (new). The bone mill of claim ¹~~26~~, wherein:

the first cutter unit includes both a relatively large diameter disk having both at least one biting blade adapted to pull pieces of the bone to be crushed into the space between the first and second cutter units, and at least one crushing blade adapted to crush said bone pieces, and a relatively small diameter disk having at least one crushing blade but no biting blade; and

the shaft of the second cutter unit varies in diameter along the length of the shaft and is configured so that a relatively large diameter portion of the shaft is disposed opposite the small diameter disk of the first cutter unit and a relatively small diameter portion of the shaft is disposed opposite the large diameter disk of the first cutter unit.

³~~28~~ (new). The bone mill of claim ²~~27~~, wherein the shaft of the second cutter unit is configured so that the biting blade of the relatively large diameter disk of the first cutter unit only narrowly clears the shaft of the second cutter unit, and the crushing blade of the relatively small diameter disk of the first cutter unit only narrowly clears the shaft of the second cutter unit, as the first and second cutter units rotate together.

⁴~~29~~ (new). The bone mill of claim ¹~~26~~, wherein both of the first and second cutter units have more relatively small diameter disks having at least one crushing

blade than they do relatively large diameter disks having both at least one biting blade and at least one crushing blade.

A1 ⁵
~~30~~ (new). The bone mill of claim ⁴~~29~~, wherein on both of the first and second cutter units, the ratio between the number of relatively small diameter disks having at least one crushing blade and the number of relatively large diameter disks having both at least one biting blade and at least one crushing blade is at least two to one.

⁶
~~31~~ (new). The bone mill of claim ⁵~~30~~, wherein one of said first and second cutter units has four relatively small diameter disks having at least one crushing blade, and two relatively large diameter disks having both at least one biting blade and at least one crushing blade.

⁷
~~32~~ (new). The bone mill of claim ⁵~~30~~, wherein one of said first and second cutter units has five relatively small diameter disks having at least one crushing blade, and two relatively large diameter disks having both at least one biting blade and at least one crushing blade.

⁸
~~33~~ (new). A bone mill comprising a rotatable first cutter unit and a rotatable second cutter unit,

each cutter unit having (i) a plurality of disks disposed in parallel to one another at regular intervals, each disk being provided on the periphery thereof with a blade, and (ii) a shaft which connects the centers of said disks to one another and which extends at a right angle to said disks,

said cutter units being positioned such that said shafts are disposed substantially in parallel to each other, and such that disks of said first cutter unit are fitted in the gaps between adjacent disks of said second cutter unit,

said bone mill further comprising a drive force transmission mechanism for mutually inwardly rotating said shaft of said first cutter unit and said shaft of said second cutter unit such that a bone to be crushed is taken in between said blades formed on said disks of said first cutter unit and said blades formed on said disks of said second cutter unit,

at least one of said disks having both at least one blade arranged to draw a relatively larger rotational locus, and at least one blade arranged to draw a relatively smaller rotational locus.

A1 9 8
34 (new). The bone mill of claim 33, wherein at least one of said first and
second cutter units includes both a relatively large diameter disk having both at
least one blade arranged to draw a relatively larger rotational locus, and at least
one blade arranged to draw a rotational locus relatively smaller than the relatively
larger rotational locus, and a relatively small diameter disk having at least one

blade arranged to draw a rotational locus relatively smaller than the relatively larger rotational locus.

A1 ¹⁰
~~35~~ (new). The bone mill of claim ⁹~~34~~, wherein:

the first cutter unit includes both a relatively large diameter disk having both at least one blade arranged to draw a relatively larger rotational locus, and at least one blade arranged to draw a rotational locus relatively smaller than the relatively larger rotational locus, and a relatively small diameter disk having at least one blade arranged to draw a rotational locus relatively smaller than the relatively larger rotational locus; and

the shaft of the second cutter unit varies in diameter along the length of the shaft and is configured so that a relatively large diameter portion of the shaft is disposed opposite the small diameter disk of the first cutter unit and a relatively small diameter portion of the shaft is disposed opposite the large diameter disk of the first cutter unit.

¹¹
~~36~~ (new). The bone mill of claim ¹⁰~~35~~, wherein the shaft of the second cutter unit is configured so that the blade of the relatively large diameter disk that is arranged to draw a relatively larger rotational locus of the first cutter unit only narrowly clears the shaft of the second cutter unit, and the blade of the relatively small diameter disk that is arranged to draw a rotational locus relatively smaller than that of the relatively larger rotational locus of the first cutter unit only

narrowly clears the shaft of the second cutter unit, as the first and second cutter units rotate together.

A1 ¹²
~~37~~ (new). The bone mill of claim ⁹~~34~~, wherein both of the first and second cutter units have more relatively small diameter disks having at least one blade arranged to draw a rotational locus relatively smaller than the relatively larger rotational locus than they do relatively large diameter disks having both at least one blade arranged to draw a relatively larger rotational locus, and at least one blade arranged to draw a rotational locus relatively smaller than the relatively larger rotational locus.

¹³
~~38~~ (new). The bone mill of claim ¹²~~37~~, wherein on both of the first and second cutter units, the ratio between the number of relatively small diameter disks having at least one blade arranged to draw a rotational locus relatively smaller than the relatively larger rotational locus and the number of relatively large diameter disks having both at least one blade arranged to draw a relatively larger rotational locus, and at least one blade arranged to draw a rotational locus relatively smaller than the relatively larger rotational locus, is at least two to one.

¹⁴
~~39~~ (new). The bone mill of claim ¹³~~38~~, wherein one of said first and second cutter units has four relatively small diameter disks having at least one blade arranged to draw a rotational locus relatively smaller than the relatively larger

rotational locus, and two relatively large diameter disks having both at least one blade arranged to draw a relatively larger rotational locus, and at least one blade arranged to draw a rotational locus relatively smaller than the relatively larger rotational locus.

A1 ¹⁵
40¹³(new). The bone mill of claim 38, wherein one of said first and second cutter units has five relatively small diameter disks having at least one blade arranged to draw a rotational locus relatively smaller than the relatively larger rotational locus, and two relatively large diameter disks having both at least one blade arranged to draw a relatively larger rotational locus, and at least one blade arranged to draw a rotational locus relatively smaller than the relatively larger rotational locus.

41 (new). A bone mill comprising a rotatable first cutter unit and a rotatable second cutter unit,
each cutter unit having (i) a plurality of disks disposed in parallel to one another at regular intervals, each disk being provided on the periphery thereof with a blade, and (ii) a shaft which connects the centers of said disks to one another and which extends at a right angle to said disks,
said cutter units being positioned such that said shafts are disposed substantially in parallel to each other, and such that disks of said first cutter unit are fitted in the gaps between adjacent disks of said second cutter unit,

said bone mill further comprising a drive force transmission mechanism for mutually inwardly rotating said shaft of said first cutter unit and said shaft of said second cutter unit such that a bone to be crushed is taken in between said blades formed on said disks of said first cutter unit and said blades formed on said disks of said second cutter unit,

wherein the first and second cutter units of the bone mill are arranged inside a case, and wherein said case is provided at a lower portion thereof with a placing face on which there is slidably placed a container arranged to receive bone particles which fall down after a bone has been crushed while passing between said first and second cutter units.

A1 42 (new). A bone mill according to claim 41, wherein said container comprises a main container and a receiving member configured to receive said main container.

43 (new). A bone mill according to claim 42, wherein said placing face slopes upward in a direction in which the container is configured to be pulled outward away from the bone mill.